

**Remarks:**

After the amendments which have been made by this Response, claims 1, 2, 6 to 9, 11, 12, 14, and 17 to 19, now stand in this application

In view of the amendments made herein, and in view of the comments made hereafter, Applicants submit that the claims now standing in this application are allowable. Moreover, Applicants submit that the amendments made do not require further search by the Examiner, especially in light of the cited Prior Art and the comments made below, so that the application as now amended should proceed to Allowance without the need for additional searching, or the like. All that Applicants have done is to rearrange some of the teachings of the previously standing claims so as to clearly define over the Prior Art in any combination thereof. No new matter has been added, but the independent claims are now more narrowly expressed than before.

Applicants have taken this opportunity to correct a typographical error in paragraph 10 as filed, (or paragraph 11 as published). It is obvious from the claims as originally filed, and particularly from Paragraph 13 as filed, as well as from its own context, that Applicants are discussing the freezing points of the various frozen oil/fat systems to be used by the inventors herein when practicing the taught and claimed invention.

Also, Applicants have taken the opportunity to amend Claims 2 and 14 to revert the language thereof to the phrase “and mixtures thereof”, rather than combinations. A review of the meanings of those words suggests that in the context hereof, the word “mixture” is better. This is especially so when the word “combination” and variations thereof are used below in the context of discussion of rejections under 35 USC § 103, the combination of references, etc.

Applicant now responds to the specific matters raised in the Official Action, as follows:

**Rejections under 35 USC § 103**

First, it is worthwhile reviewing the claims as now amended to fully understand what they are teaching. Of course, it is kept in mind that the claims are directed to the ordinary person who is skilled in the art, and that art is the baking art – particularly pastry makers – as well as, of course, to fat scientists – particularly those who are skilled in the science relating to frozen long-chain vegetable oils having at least 16 carbon atoms.

It is also worth remarking that pastry making is, indeed, an art, as it was practiced by the homemaker – consider mothers and grandmothers of the past 50 years or so – but it is also a highly skilled science when it is practiced by commercial bakers who will make thousands of kilograms of pie crust mixture each day. They are the people to whom the present invention is directed, they are the people who are expected to be widely read and experienced in their art (science), and they are the people who will read the claims to learn a new invention in view of their present knowledge and all the written materials available to them – including issued United States Patents.

It must also be kept in mind that the Applicants herein want to provide a pie crust mixture which, when it is made into a pie with pie fillings, will result in a particularly flaky pie crust. How does this occur? Because,

as the skilled pie crust maker knows, the fat constituent must not be evenly distributed throughout the pie crust mixture. There must be “pockets” of fat here and there throughout the pie crust to give it a flaky texture. If the oil/fat system were too liquid, then a more even, mealy, texture would be achieved; which is acceptable for tarts or the like, but not pies.

Now, what do the claims now standing in this application teach? What do the Applicants herein wish to impart to their colleagues who are commercial bakers and/or fat scientists?

We shall look at Claim 1 for the answers.

First, the Applicants wish to provide a pie mixture which uses a frozen oil/fat system as a principal constituent, and that system must contain zero hydrogenated fat. This is an important point to remember in today's art. As such, the Applicant contends that any Prior Art which teaches the use of hydrogenated fat systems is not relevant, and must therefore be dismissed out of hand.

The frozen oil/fat system must be naturally long-chain oils having at least 16 carbon items, where the naturally occurring vegetable oil is non-winterized, has a freezing point between + 5° C and -35° C, and has a consistency similar to that of pork lard at 4° C. What does that mean?

That means that only certain vegetable oils are suitable. They must have at least 16 carbon atoms. They must have a freezing point lower than + 5° C and higher than -35° C. In other words, they must have plastic solidity (like butter or pork lard) at a temperature within the designated range; and they must not be such as to have an SFI characteristic that allows only 50% solids at 10° C. They must have the kind of plastic solidity that pork lard has at 4° C – a consistency that is well known not only to the homemaker who is a skilled pastry maker, but to the commercial baker who makes thousands of kilograms of pie crust mixture every day.

And what does non-winterized oil mean? As is well known to those skilled in the art, it means that the vegetable oil must not have been treated in any way so as to remove the hard fat components therefrom. Put in other words, if vegetable oils are winterized, they are such that they will not go solid when they get cold; but the Applicants herein require that the long-chain vegetable oils that are used must solidify at low temperatures below 5° C.

Up to 50% of the initial water content, when it is first mixed with the flour constituent, may be frozen water in the form of shaved, flaked, or finely ground ice. Why? So that, as the flour and water are mixed, there is less likelihood that the flour will heat up due to friction of the mixing machine with the flour particles.

Finally, Claim 1 requires that the constituents of the pie crust mixture must have been mixed in a room or mixing environment having a temperature of + 5° C to 20°C.

So now, we look at the cited Prior Art. We must, however, consider what the person skilled in the art would turn to in order to discover if any one else, or some combination of other persons, has already come up with a formulation that does not include hydrogenated fat constituents, that requires that the frozen oil/fat system has the same consistency as pork lard at 4°C, and which must be mixed in a room that is below ordinary room temperature, using up to 50% of the water constituent in the form of finely divided ice particles.

Would the person of skill in the art look to Kincs et al? No. Why? First, because that reference teaches a pelletized shortening that requires the use of hydrogenated oils. Also, the SFI characteristics of the various pelletized shortening formulations are all such that at 10°C they would have at least 53% to 84% solids (Column 4, line 36), or 58% solids (Column 5, line 39), or 63% solids (Column 5, line 60), or 79% solids (Column 6, line 13). Granted, Kincs et al teach that their shortening is pelletized, although they are silent as to the advantages of the pelletization except for its “tenderizing effect in dough products” (Column 1, lines 46 and 47. [Note, also, that Kincs et al refer to dough products (examples being “biscuits, cakes, cookies, pie crusts, pizza crusts, rolls, and the like” (Column 5, lines 6 and 7) as opposed only to pie crust pastry mixtures.] In fact, the reference to doughs – which require yeast – would cause the reader to discard the Kincs et al reference immediately.

Kincs doesn't really teach anything about how to make pie crust mixtures. So, does the person skilled in the art turn to Peleg et al, according to the Examiner? At least that reference teaches a pie crust dough, and Applicants would probably have referred to that patent first, rather than to Kincs et al. In any event, the first thing that strikes the reader of Peleg et al is that the pie crust formulation contains starch and liquid vegetable oil. This, of course, is completely contrary to the Applicants' intention to use a frozen oil/fat system, and starch is never, ever, considered by the Applicants. But it is an essential ingredient for Peleg et al. Why? So as to “maintain the desired tender texture of the pie crust dough” (last line of Column 2 and first line of Column 3.)

Peleg et al consider using mixtures of hydrogenated vegetable oils (a “No No!” as far as the Applicants are concerned), along with animal fats (another “No No!”). Moreover, Peleg et al insist on using liquid vegetable oils, which would result in a very mealy texture of the pie crust. (Tender, perhaps. But not flaky!)

So, the person skilled in the art would turn elsewhere for guidance. Would the person skilled in the art turn to the Professional Baking reference for further assistance, to help get around all of the roadblocks and shortcomings that would result from any combination of the Kincs et al and Peleg et al references? Probably not. Why? Because our skilled person in the art of making pie crusts, or who is a skilled fat scientist, should already know the definitions of flaky and mealy pie doughs; (s)he would already know that it is best to use cold water (or milk) when making pie doughs and short pastry; and (s)he would know to work at a temperature below room temperature – or at least, to store the mixture at a lower temperature than room temperature.

Accordingly, Applicants herein deny that any combination of Kincs et al, Peleg et al, and the Professional Baking reference would lead any person with any measurable skill in the baking arts or as a fat chemist to the present invention. None of the suggestions made by the Examiner as to what would be obvious are true. The fact is that the two patent references teach in opposite directions to the present application. They require the use of such forbidden constituents as hydrogenated oils; they are silent as to the freezing points of the oils, or teach away from the requirements of the present invention; and they are quite silent as

to the fact that the oils are not winterized.

Applicants also suggest that it is not correct, nor a scientific conclusion, to assume that since a reference does not teach that the oils are winterized, that they must therefore be non-winterized. Neither is it appropriate to say that just because a reference teaches some of the oils claimed herein, that the reference is therefore relevant – especially when the same reference also teaches that the said “some of the oils” are hydrogenated.

Of course, it will be understood that the comments above are equally applicable to independent Claim 11. As to the remaining depending claims, the relevance of any combination of the Prior Art references is even further removed than the discussion above as it relates to Claims 1 and 11.

The issue of obviousness is a question of law and as set forth in *Graham v. John Deere Co.* [383 U.S. 1, 17 (1966)] requires factual inquiries as to the scope and content to prior art; the differences between the prior art in the claims at issue; the level of ordinary skill in the art; and objective evidence of secondary considerations, if any.

To determine whether an invention is obvious, it must be considered as a whole without benefit of hindsight, and claims must be considered in their entirety. *W. L. Gore & Assocs. v. Garlock, Inc* [721 F.2d 1540 (1983); *Medtronic, Inc v. Cardiac Pacemakers, Inc.* 721 F.2d, 1563, 1567 (1983)].

To determine whether a combination of old elements is non-obvious, it must be determined whether an artist of ordinary skill in the art at the time of the invention, with no knowledge of the claimed invention, would have some motivation to combine the teachings of one reference the teachings of another reference. *See In re Fulton*, 391 F.1195, 1200-02 (2004).

Of course, it is also will settled that "the motivation to combine need not be found in prior art references, but can equally be found ' in the knowledge generally available to one of ordinary skill in the art'". *National Steel Car, Ltd v. Canadian Pacific Railway Ltd.* [357 F.3d, 1319, 1337 (2004)]. It must be shown that a person of ordinary skill in the art recognized the same problem to be solved as that solved by the inventor, and suggested a solution that is, at least, probative of a person of ordinary skill in the art's willingness to search the prior art in the same field for suggestions as to how to solve the problem (emphasis added). [*Cross Med Products.*, 424 F.3d at 1322 (citing *Pro-Mold & Tool Co., v. Great Lakes Plastics, Inc.* 75 F.3d 1568, 1573 (1966))].

[Note: the citations made above are from Federal Circuit judgments.]

Where, then, is the incentive even to refer to Kincs et al for a teaching of formulations for pie crust mixtures that do not employ hydrogenated oils, and that must employ long chain vegetable oils having at least 16 carbon atoms and a freezing point between + 5° C to 20°C? There is none! Where is the incentive to refer to Peleg et al to find the answer to making a pie crust mixture that does not employ hydrogenated oils, nor additional ingredients such as starch? There is none!

Finally, again it must be stressed that the present disclosure and claims are addressed to those skilled in the art, and particularly to those who are skilled in the pastry arts, and also particularly to scientists are

skilled in arts relating to vegetable oils and fats. Any such person will have no difficulty whatsoever in understanding the disclosure, and any such person will have no difficulty whatsoever in preparing a cold-mixed pie crust mixture having no hydrogenated vegetable oils, and no animal fats, without reference to any other teachings or to any other words than those that are found in the present application. If such skilled person were to refer to the cited references for whatever reason, those references would be immediately dismissed as having no relevance whatsoever.

Therefore, Applicant respectfully urges that the present application, as now amended, is in allowable condition, and respectfully solicits a Notice of Allowance at the earliest opportunity. Accordingly, favourable reconsideration of this application is respectfully requested.

Respectfully submitted,  
**Gowan Intellectual Property**



**Gowan Intellectual Property**

1075 North Service Road West  
Suite # 203  
Oakville, Ontario  
CANADA L6M 2G2

T: 905-827-5000  
F: 905-827-5087

**Per: Gerald A. Gowan**

Registered Patent & Trade-Mark Agent  
US Registration No. 37,041/US Client No. 58388  
email: ggowan@gowanip.com

GAG:deh